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AUTHOR Clary, Linda Mixon
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ABSTRACT

Four variables--teacher personality, knowledge of reading, years of experience, and number of years since last reading course--and their relationships with pupil achievement in reading were examined in a study involving 23 fourth grade teachers. The teachers were evaluated on several instruments and their pupils were pretested and posttested with a standardized reading achievement test. Each teacher's scores on the variables in question were correlated with the mean class gain for the students. Results showed a significant relationship between student success and teacher personality and knowledge. The best combination of predictors was personality with knowledge. (Author/FL)

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# Teacher Characteristics that Predict Successful Reading Instruction

Linda Mixon Clary

Various researchers in the field have studied the teaching of reading to students at all levels and in all types of situations. The time and effort and money involved in such research since the early 1900's have been prodigious, but the overriding conclusion has been that the teacher is the most important variable in reading instruction. The current feeling by scholars in the field seems to be that additional research of methods and materials would be a wasted task. What needs to be done, particularly during this era of establishing concrete teaching competencies, is to specify the characteristics of successful reading teachers.

This overall problem, quite obviously, is broad in nature and affects the entire scope of reading instruction. The past findings from research given below will reinforce its significance, as do the intrinsic feelings among teacher educators in the areas of reading and language arts that there are specific traits that delineate the more successful reading teachers from those who simply hold such positions. For research purposes, these characteristics and their influence on success in teaching reading must be investigated in small clusters in order to eventually arrive at general conclusions. This study was planned and carried out in order to perform such a limited investigation of specific questions.

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The literature includes findings in the areas of personality, knowledge of teaching reading and personal and professional characteristics as they influence reading instruction, and these factors were considered in this study. Unfortunately, research has produced very few definite conclusions about the nature and measurement of teacher personality or the relationship between teacher personality and effectiveness of instruction (10). Even less research exists in the area of teacher personality and pupils' success in reading. However, those studies that do exist have dealt with several areas: students' perceptions of teacher attitudes (6); teachers' perceptions of students (7); observations of instruction (9); observations and personality (5); observations, personality descriptions and personal information (12); teacher personality types (21); inflexibility of ideas (13); the interaction of teacher effectiveness and behavior variables (15) and general characteristics of teacher effectiveness, including personality factors (17).

The factor of teacher knowledge of reading has been recognized as a major concern by many authorities (1, 3, 11) with the general conclusion that the teacher is the key difference. The general concensus is that "...future research should center on teacher and learning situation characteristics rather than methods and materials..." (3:123).

Several studies have also investigated various personal characteristics of teachers that might affect their instruction

and thus affect pupil achievement. Again, the data have produced conflicting results. Many of the same variables have been investigated by several authors--age, sex, years experience, marital status, degrees earned (3, 12, 14, 18). However, the findings have been varied and sometimes confusing, particularly on the effect of experience in teaching on success in the classroom (3, 14, 19).

As this brief summary has indicated, the teacher's importance to the successful functioning of a classroom is generally accepted, but little concrete research evidence exists to describe the precise teacher variables that predict successful pupil achievement in reading. The results of previous studies are inconsistent, except for the one conclusion that the most important factor in successful reading instruction is not methods, materials or organization, but always the teacher (1, 3, 16).

The purpose of this study was to investigate four variables--teacher personality, knowledge of reading, number of years experience and number of years since the last reading course--and their relationships with pupil achievement in reading. An analysis was then made of the four correlations to see which one factor or combination of factors served as the best predictor of pupil success in reading.

## Method

### Subjects

In order to carry out this investigation, all the fourth

grade reading teachers and their students in Spartanburg, South Carolina School District #6 were evaluated on several instruments. There were 25 fourth grade teachers in the district, but two were lost from the original group, and 23 participated in the final study. All fourth grade students who took both the pre- and posttests participated; this group totaled 468.

This school system, one of seven in Spartanburg County, served 7, 220 students and employed 375 professional staff members at the time of the study. It draws from a population of approximately 32,000 people. The District #6 schools, located on the perimeter of the city of Spartanburg, serve a predominantly residential section that is composed of urban and rural areas that are populated by mainly white, middle class residents. There are 11 elementary schools, 1 middle school, 2 junior highs and 1 senior high in the district. There are four colleges in the city, and the community is the home of many industries, particularly in the field of textiles. The county is situated in northwestern South Carolina, near Greenville, the third largest city in the state. Spartanburg is the only city of notable size in Spartanburg County.

Procedures

Prestesting for this study took place in October. As a part of the regular school testing program, the Science Research Associates Achievement Series, Reading was administered to each fourth grade student by his classroom teacher. The tests were machine scored, and the class means were used as the pretest scores.

In February, a letter was sent to every fourth grade reading teacher in the district. This letter explained the study and each teacher's role in it. It also guaranteed the confidentiality and anonymity (except for an identification number) of all results. The procedures for the investigation were enumerated and a time-table provided. Meetings with the school superintendent and assistant superintendent had been held in October to organize the study. A subsequent meeting was also held with all the principals to secure their cooperation in the study. The researcher outlined the procedures to them at that time. They were also sent a letter in February to review the study and a memo to set up the testing.

In March, the researcher and a team of assistants went into the classrooms of all the teachers who participated in the study. At that time, each class was posttested with the alternate from of the Science Research Associates Achievement Series, Reading. The directions for the test were taped in order that every class would receive the same directions. A practice exercise was conducted to assure that the students could follow taped directions. Total testing time was approximately 1½ hours. These posttests were hand scored by the researcher. The raw scores were converted to grade equivalents according to the conversions tables in the examiner's manual (20). Class means for students who took both pre- and posttests were computed, again by the investigator.

While this test was administered to the students, each teacher left the classroom and went to a private room and took

the Edwards Personal Preference Schedule and the Inventory of Teacher Knowledge of Reading and filled out the teacher questionnaire. These directions were also taped; again, each teacher heard the same directions before doing the tests. These tests were untimed, but the teachers usually spent about two and one-half hours responding to them.

Each instrument was chosen for a variety of reasons. According to reviews by Bryan and Smith (4), the SRA test has been evaluated as one of the better achievement batteries available, particularly because of the length of each subtest. This test was also the instrument employed in the district's annual testing program, and using it prevented dual testing. Heilbraun (4) considers the Edwards Personal Preference Schedule as a very popular test. He notes that it consists of a cross-section of normal interpersonal dynamics. The scale reliabilities are satisfactory, and the intercorrelations are reasonably low, while the norms are based on stable samples. The split-half reliability coefficient is .76. Although there was no information on the validity or reliability of the Inventory of Teacher Knowledge of Reading at the time of this study, it was the only commercially available test of teacher knowledge of reading. The teacher questionnaire was written by the researcher and piloted and refined prior to the study.

All of the teachers' tests were untimed and were hand scored by the researcher. One score was obtained for each of the 15 variables on the EPPS, but there was no total personality score. Since the statistical technique of multiple regression analysis

was being employed in this investigation and is generally most useful with four to five variables, it would have been very difficult to use all 15 scores on the personality traits. Therefore, the decision was made by the investigator to have each teacher take the complete test as a total personality inventory. Each of her scores was then correlated with the reading gain score of her class. When the correlations were computed, the data indicated that the highest correlation with successful student achievement resulted from the scores on the exhibition variable. Therefore, since this characteristic was the most strongly exhibited trait by the successful teachers, this factor was the only personality measure entered in the multiple regression analysis. However, the other personality preferences had been analyzed through the total test. Edwards (8) defines exhibition as

> To say witty and clever things, to tell amusing jokes and stories, to talk about personal adventures and experiences, to have others notice and comment upon one's appearance, to say things just to see what effect it will have on others, to talk about personal achievements, to be the center of attention, to use words that others do not know the meaning of, to ask questions others cannot answer.

The raw scores were computed for each variable being investigated. These scores includedthe exhibition score from the EPPS (8), the total number of correct responses on the Inventory of Teacher Knowledge of Reading (2) and the number of years experience and the number of years since the last reading course extracted from the informal teacher questionnaire prepared by the researcher.

Results

Table 1 shows the mean and standard deviation of the scores for each variable used in the investigation.

In order to analyse the data, the variables of teacher personality (exhibition), teacher knowledge, years experience and years since the last course were correlated with the criterion variable, reading achievement gain, and with each other. See table 2.

As the figures from table 2 indicate, there were significant relationships between personality and student achievement and knowledge of reading and student achievement ($p < .05$). However, there were no significant relationships between the number of years experience and the number of years since the last course and the criterion.

In addition to calculating the significant relationships among the factors under consideration, further analysis of the data was made to determine the best linear combination of variables to predict successful student achievement. This analysis yielded the most pertinent information to answer the main question of the study, i.e., what are the characteristics that distinguish the successful reading teacher from the less proficient one? The following possible equations were set up to test the predictors: (1) teacher personality; (2) teacher personality and teacher knowledge; (3) teacher personality, knowledge and years of experience; (4) teacher personality, knowledge, years of experience and years since the last reading course. See table 3. As stated previously, each of the variables under consideration was correlated with student achievement and

TABLE 1

MEANS AND STANDARD DEVIATIONS OF VARIABLES IN THE INVESTIGATION

| Variable | Variable Name | $\bar{X}$ | S.D. |
|---|---|---|---|
| 1 | Teacher personality (exhibition) | 11.4348 | 4.6596 |
| 2 | Teacher knowledge of reading | 57.7826 | 9.2292 |
| 3 | Number of years experience | 15.6087 | 11.4167 |
| 4 | Number of years since the last course | 5.1739 | 4.3028 |
| 5 | Reading achievement gain | .6765 | .3476 |

TABLE 2

INTERCORRELATION MATRIX FOR TEACHER PERSONALITY, TEACHER KNOWLEDGE, YEARS EXPERIENCE, YEARS SINCE LAST COURSE AND READING ACHIEVEMENT GAIN

| Variable* | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1 | 1.000 | .347 | -.349 | -.485 | -.084 |
| 2 | | 1.000 | .142 | -.142 | .116 |
| 3 | | | 1.000 | .345 | .470** |
| 4 | | | | 1.000 | .490** |
| 5 | | | | | 1.000 |

*Variable 1 - Number of years experience
2 - Number of years since last course
3 - Teacher knowledge of reading
4 - Teacher personality (exhibition)
5 - Reading achievement gain

**$p. < .05$

TABLE 3

MULTIPLE LINEAR REGRESSION EQUATIONS WITH READING ACHIEVEMENT AS CRITERION

| Variable Equations | R | $R^2$ | Increase | F |
|---|---|---|---|---|
| 1 | .4896 | .2398 | | 6.6260 |
| 1 + 2 | .5854 | .3426 | .1029 | 3.1305 |
| 1 + 2 + 3 | .6374 | .4063 | .0636 | 2.0363 |
| 1 + 2 + 3 + 4 | .6381 | .4971 | .0009 | .0264 |

and entered in the stepwise multiple regression analysis. The analysis enabled the investigator to determine the amount of variance in the criterion variable that was explained by the specific predictor variable or combinations of predictor variables. The significance of the relationship between each predictor variable or combination of predictors and the criterion was evaluated in terms of R. An F test was used to determine if the predictor variable or combination of predictors accounted for a significant increase in the variance associated with the specific factors. This test also determined if the addition of other predictor(s) increased the efficiency of the equation.

The correlates were entered in the regression analysis in descending order from the highest to lowest correlation. See tables 3 and 4 for the data yielded by the multiple regression analysis. The total information from the analysis indicated that the best linear combination of variables to predict successful student achievement in reading was the combination of teacher personality and teacher knowledge. Among the variables tested, these were the ones that characterized the successful teacher. The addition of the variables of number of years experience and number of years since the last course did not make a significant contribution to the prediction of successful reading achievement. Similarly, deleting these two factors from the prediction of the criterion would not be a significant deletion. Therefore, the best linear combination of variables to predict successful student achievement was teacher personality (exhibition) and teacher

TABLE 4

F VALUES FOR SIGNIFICANCE OF $R^2$ OF FULL AND RESTRICTED EQUATIONS WITH READING ACHIEVEMENT AS CRITERION

| Variable equation | df | F |
|---|---|---|
| 1 | 1, 21 | 6.623* |
| 1 + 2 | 2, 20 | 5.212* |
| 1 + 2 + 3 | 3, 19 | 4.334 |
| 1 + 2 + 3 + 4 | 4, 18 | 3.090 |

*$p < .05$

knowledge. This combination represented the optimum set of variables for predicting reading achievement.

Discussion

As a result of this investigation, the researcher arrived at several conclusions that are compiled below. Statements 1-4 summarize the investigation of the relationships between the various factors and reading achievement while statements 5-9 deal with the predictors of successful student achievement.

1. There is a significant relationship between teacher personality and successful student achievement in reading.
2. There is a significant relationship between teacher knowledge of reading and successful student achievement.
3. There is no significant relationship between the number of years experience and successful student achievement.
4. There is no significant relationship between the number of years since the last reading course and successful student achievement.
5. Teacher personality makes a significant contribution to the prediction of successful student achievement.
6. Teacher knowledge of reading in combination with teacher personality make a significant contribution to the prediction of successful student achievement. These two variables comprise the best predictors of successful student achievement measured in this investigation.
7. The number of years experience does not make a significant contribution to the prediction of successful

achievement in reading when measures of teacher personality and teacher knowledge of reading are included as predictor variables.

8. The number of years since the last reading course does not make a significant contribution to the prediction of successful achievement in reading when measures of teacher personality, teacher knowledge of reading and number of years experience are included as predictor variables.

9. The inclusion of measures of teacher personality and teacher knowledge of reading in predicting successful student achievement in reading appears to be justified.

More specifically, these data purport that, in the context of this study, there are precise characteristics that the successful reading teacher possesses that are related to the success of her pupils in learning to read. Such characteristics are found in the areas of personality, knowledge and personal and professional traits.

In the area of personality, according to the measures of this study, the successful reading teacher is a witty, clever, attractive, esoteric person who likes to relate personal experiences and be in the limelight. Furthermore, there is a direct relationship between the person who exhibits proficient knowledge about teaching reading and that person's success in producing students who make an appreciable amount of progress in reading achievement. These findings are in direct opposition

to past research that indicated that the knowledge factor made no significant differences (12, 14).

The data in this investigation also show that there is no significant relationship between teaching experience and up-to-date training in reading and successful reading achievement in students. Ryans (16) found a similar characteristic in his sample of teachers and concluded that teachers over the age of 54 were not as effective in comparison to younger ones. This conclusion, however, has not been supported by others (3, 14).

The final analysis of these data indicated that the best predictors of student achievement were teacher personality (exhibition) and teacher knowledge of reading. Therefore, a person characterized by these two traits might be predicted to be a good reading teacher (in terms of amount of achievement attained by students). In the future day-to-day operation of similar schools with similar faculty and students, such information might feasibly be used to hire reading teachers, to assign students in particular need of making gains in reading achievement to teachers and to place teachers in specific schools. In addition, the findings suggest the possibility that teacher education programs need to consider the student's personality, as well as his pre-service and in-service training, in their efforts to produce successful reading teachers. The analysis of personality factors might also be considered in counseling and guiding prospective reading teachers.

An analysis of these data, however, indicate that these

findings are restricted to a small, limited population and that all of the conclusions may have been limited by the instruments and the population of teachers and students that were used. There are always difficulties in attempts to measure personality through paper-and-pencil tests. In calculating a teacher's knowledge of reading and how to teach it, the same problem exists, and it is compounded by the fact that there are almost no instruments available. Therefore, any application of the results of this investigation can only be arrived at through analogous comparisons. However, the findings do indicate that the successful reading teacher can be studied and will eventually be specifically described through similar research procedures.

From the results of this study, it appeared that several recommendations for future research could be made. Consideration should be given to similar investigations of reading teachers and their ability to help students master the reading process. Therefore, the characteristics of the successful teacher could be more precisely defined, and the reading process could be more clearly explicated. Replication of the present investigation is suggested utilizing the same tests with larger, more diverse populations and with different tests to measure the same and/or other variables at different grade levels, particularly at the first grade level where the students have been exposed to only one teacher. Consideration should also be extended to similar studies employing exhaustive regression analysis to determine the optimum possible set of variables to predict successful

reading achievement. Moreover, since this study was restricted by the instruments that were available to measure the desired variables, it is the author's opinion that attention should be given to the development of more numerous and sophisticated instruments, particularly in the area of teacher knowledge of reading. Research that would analyze and explicate the specific tasks that comprise the good teaching of reading is also suggested. Such tasks could then be verified by empirical data.

After conducting this study, the researcher feels that its results support what many researchers (1, 3, 11, 16) have contended: that the successful teacher of reading can be more specifically characterized in terms of professional and personal variables. The findings suggest that there is value in researching specific, small numbers of variables in order to further delimit the characteristics of good reading teachers that empirical data acknowledge. Hopefully, future research will further delineate these traits and lead to broader findings that will support the specific characteristics of successful reading teachers.

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